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Family Background and Occupational Goals of School Children of the Union Territory of Delhi, India

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INTRODUCTION

As part of a larger research project devoted principally to exploring the effects of urban contacts upon Indian villagers, we investigated differences between rural and urban school children regarding their choices of occupational goals and the reasons for their choices. Eleven hundred twenty-eight school children wrote brief essays on the topic "What kind of work I want to do when I grow up, and why." The children, from grades 4 to 8 inclusive, attended nine schools, four in greater Delhi (Old Delhi and New Delhi) and five northwest of the city in the rural area of Delhi Union Territory. The four urban schools can be divided into two with predominantly upper-class children and two with predominantly middle-class children. We were unable to obtain essays from any schools in the lower-class or slum sections of the city. Table 1 gives a breakdown of the children who contributed essays by family background, sex, and grade in school.

Our analysis centers on comparisons of the essays grouped as to the children's family background: urban upper class, urban middle class,

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or rural. There are striking differences among the groups of children in occupational choices and reasons. The differences are especially striking between urban (both upper and middle classes combined) and rural children and between children of the urban upper class and rural children. The children of the urban middle class stand between the children of the urban upper class and rural children, usually showing differences from both, although these differences are not so great as those that separate urban upper-class and rural children or those that separate the urban children and the rural.

TABLE 1
NUMBER OF SCHOOL CHILDREN CLASSIFIED BY FAMILY BACKGROUND, SEX,
AND GRADE IN SCHOOL

Family Background	Boys		Girls		Total
	Grades 4, 5	Grades 6-8	Grades 4, 5	Grades 6-8	
Urban upper class	148	89	115	133	485
Urban middle class	39	57	37	44	177
Rural	44	317	26	79	466
Total	231	463	178	256	1128

In general, the principal difference in occupational choice among the groups of children is the greater popularity of occupations involving modern science and technology among the urban children. With regard to the reasons for the choices, those relating to the self, such as the opportunity to acquire personal wealth, are more prominent among the urban children than among the rural; however, a large majority of both urban and rural children selected reasons oriented toward service to others or to India. The patterns characteristic of urban children will probably become more prominent in India as industrialization increases, opportunities for advanced education become more common, and urban influences increasingly reach the countryside by means of radio and television and an increasing volume of magazines and newspapers.

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COLLECTING THE ESSAYS

We became interested in collecting essays from school children upon reading Goodman's (1957) revealing analysis of essays obtained from Japanese and American school children. At that time we were living in Shanti Nagar (a pseudonym), a village about 11 miles from Delhi, where we conducted most of our fieldwork. We decided to investigate the possibility of collecting essays similar to Goodman's in the rural area near Shanti Nagar and in Delhi, for the analysis of such material might provide interesting insights into rural and urban differences and interactions, the problem about which we had organized our research in India. Furthermore, we could also investigate national differences by comparing our Indian material with the data gathered by Goodman in Japan and in the United States.

We collected our first essays through the good offices of one of the men of Shanti Nagar who was a teacher in a large, rural, higher secondary school (grades 6 through 11). He was interested in our work and spent a good deal of time chatting with us. We asked him about the possibility of collecting essays in the school in which he taught. He assured us that he could get complete cooperation from teachers and students, so we prepared an instruction sheet in Hindi for each teacher, purchased enough paper for the children so that neither the children nor the school would be put to any unnecessary expense because of the research, and awaited results. A week or two later, our friend brought us a pile of essays. He said that the project had caused no difficulties and that everyone had been happy to cooperate. Our success in this first school encouraged us to collect essays from other rural schools as opportunities arose. When we moved into Delhi to concentrate on the

urban phase of our research, we collected essays in urban schools.

Both in Delhi and in the rural areas, we collected essays where we could, making no attempt to select a random sample of schools in the Union Territory of Delhi. Thus, to draw inferences from our data about the larger population of schools is, statistically speaking, dangerous. Nevertheless our knowledge of Delhi and the villages of the Union Territory leads us to believe that our data probably give a reasonably accurate picture of the attitudes of school children in this small region of India. There would be little justification, however, for believing that the attitudes of the school children of Delhi Union Territory are necessarily representative of Indian school children living elsewhere.

For anthropologists who customarily collect their data through interviews, a noteworthy difference in collecting data in the form of essays is that it does not permit the usual checking that is done during an interview: asking the same question in various ways to check consistency, probing areas that are unclear, and, in general, evaluating the reliability of the informant. This disadvantage, however, is compensated for by the large number of essays it is possible to collect. The problem of the reliability of a particular informant is greatly reduced, for, instead of dealing with five or 10 individuals, one is dealing, in this case, with more than a thousand. Atypical or unreliable essays are swamped in the analysis by the mass of data.

Neither of the authors was present in the classroom while the essays were written. We therefore do not know exactly what happened. We ordinarily discussed our project only with the heads of schools, and they distributed our instruction sheets to the teachers. We requested that the teachers handle the essay project as a regular class assignment without disclosing that the essays were for research. The presence of Americans would have called into question the routine nature of the assignment and would probably have been disruptive in other ways.

The only really serious problem in leaving responsibility entirely in the hands of the teachers was the possibility that, in giving instructions or in answering a student's question, the teacher might influence all the children to write essentially the same essay. Such an event would be apparent from the content of the essays, and it appears to have occurred three times: in one class of six girls, three essays were similar enough to suggest either the influence of the teacher or copying among the students; in a second class of 24 girls, 21 essays were so similar as to suggest some kind of guidance from the teacher; and in a third class of 16 girls, 13 of the essays were similar.

THE SCHOOLS

The four Delhi city schools can easily be divided into two schools with students that are predominantly upper class and two with students that are predominantly middle class. This judgment is based on the characteristics of the schools and on the occupational and educational data regarding parents as reported by the children. The upper-class schools are excellent private schools. One was originally founded for girls only and was primarily attended in its early history by girls from families who maintained the custom of *purdah* (seclusion of women). Today the lower grades are open to boys. The other upper-class school, open to both boys and girls, is probably the finest school in Delhi. The fathers of the children who attend these two schools are generally well educated and hold important positions in business, government, and the professions.

The middle-class schools are situated in an addition to Old Delhi in which construction began about 1952. In 1959, when we collected our essays, most of its population of about 5000 consisted of Punjabis who settled there following the partition and independence of India and Pakistan. The middle-class schools are public schools in the American sense. The fathers who send their children to these middle-class schools are less educated and have more modest occupational roles than the fathers of the children attending the upper-class schools. For example, 96 per cent of the children from the upper-class schools who provided educational data about their fathers reported that their fathers had studied at the college level. The comparable figure among middle-class fathers is 50 per cent. Eight per cent of the children from the upper-class schools who provided occupational data about their fathers reported that their fathers were doctors; only 2 per cent of the fathers of middle-class children were doctors. On the other hand, 16 per cent of the middle-class fathers were classed as workers and artisans, whereas only 3 per cent of the upper-class children reported that their fathers followed such occupations.

The distinction that we make between upper- and middle-class children is intended to imply only that the upper-class children generally have parents with higher educational attainments and more important occupational roles and, therefore, presumably have higher incomes. Furthermore, we recognize that in these characteristics the student bodies overlap. At least one of the upper-class schools, for example, provides for a number of free students who come from families in modest circumstances. The distinction is valid, however, with regard to the central

tendencies within the groups of students.

The class distinction that can be made so easily among the four Delhi schools is impossible to make among the students of the five rural schools. In the area serviced by these schools, farmers with small holdings, principally of the Jat and Brahmin castes, form a large part of the population; landless artisans and serving castes comprise the remainder. Most of the school children who wrote essays (at least 70% of the boys; 62% of the girls) were children of farmers. The families from which these children came are not the equivalent of either the urban middle or upper classes although, of the two, they are least like the upper class in terms of education and employment.

THE ESSAYS: TRANSLATION AND CLASSIFICATIONS

The essays were written in Hindi and translated into English by Mrs. Urmila Sat Soni, one of our very able interpreters and research assistants. Mrs. Soni translated the essays while we were still in India doing field-work; consequently, we were able to consult with her whenever there was any doubt about the intentions of a child. Because of Mrs. Soni's skills in both English and the local Hindi dialect and our familiarity with rural and urban occupations in Delhi Union Territory, there were only a few essays about which there was some doubt as to a child's occupational choice.

In addition to the essays, children were asked to supply the following information: name, age, grade, sex, education of father and mother, and occupation of father and mother. All students gave their names, but some omitted some of the other information. We did not check the accuracy of the information regarding the parents, either by interviewing the parents or by investigating the possibility that school records contained the information. The data no doubt contain some errors. Occupational and educational status, however, are not hidden in India, but are matters of general knowledge. Educational attainments are often known rather precisely, especially at and above the level of matriculate (tenth grade). People speak, for example, of "matriculate failed," "higher secondary passed," and "B. A. failed." Although errors occur, the validity of the occupational and educational data in a sample as large as this one is certainly adequate for one to determine gross differences in these characteristics among the urban upper-class, urban middle-class, and rural parents.

Most essays contained a single occupational choice. A small minority of children listed two or more choices, often without indicating an order

of preference. In such cases, all occupational choices after the first one were disregarded. For purposes of statistical analysis we chose the chi-square test, and for this statistical test only one occupational choice per student could be allowed.

The approximately 80 occupational choices given by the children were grouped into 10 categories for boys and 11 for girls for whom the category of housewife was added. These follow alphabetically.

OCCUPATIONAL CHOICES

ARTS: Actor, artist, athlete, author, musical instrument player, poet, radio work, singer.

BUSINESS: Businessman, clerk, farmer and agricultural worker, farmer and some other job in addition, office work, secretary, shopkeeper.

EDUCATION: College administrator, headmistress, principal, professor, teacher.

GOVERNMENT: Civil service, Indian Administrative Service, king, leader, member of Parliament, member of a state legislative assembly, official in charge of a district, president, prime minister, social worker, village accountant.

HOUSEWIFE: (Girls only).

MEDICINE: Doctor, nurse, optician, Red Cross worker, veterinarian.

MILITARY: Air force, army, navy, police.

MISCELLANEOUS SERVICE: Any service, reasons or moral exhortations listed but no specific choice of occupation mentioned, service to the nation and village.

OTHER PROFESSIONAL: Airline hostess, accountant, architect, editor, holy man or woman, judge, lawyer, librarian, pilot, saint.

SCIENCE: Engineer, scientist.

WORKER AND ARTISAN: Barber, basketmaker, bullock-cart driver, bus conductor, carpenter, driver, factory worker, goldsmith and silversmith, horse-cart driver, ironworker, laborer, peon, potter, railway department, railway engineer, seamstress, shoemaker, sweeper, tailor, taxi driver, washerman, watchman, weaver.

All such classifications are somewhat arbitrary, and several contain a few features that require comment. For example, social worker could have been included in the Other Professional category as well as in the Government category where we placed it.

We classified the police and the military services together in one category because of their mandate to use force in the maintenance of law and order and national security; also, the education and training required for these occupations are somewhat similar. Although military personnel and policemen are governmental employees, we decided to separate them from other civil servants, because Indians apparently believe that a military career is considerably different from a career in, for example, the Indian Administrative Service.

The reason for placing farmer and businessman in the same category

is that farming is the business of the rural areas. We regard a rural boy's choice of farmer as the equivalent of a city boy's choice of businessman. To classify these occupational choices in different categories and then compare the occupational choices of rural and urban boys would probably lead to statistically significant differences between the two groups, but such differences would reflect to a large extent only the obvious differences in the physical environment of city and village. If, however, a comparison of the occupational choices of rural and urban boys reveals a statistically significant difference when business and farming are equated, we can properly look to such factors as, for example, a possibly greater sophistication of city children and a stronger leaning toward occupations involving prolonged formal education.

The placing of a holy man or woman or saint in the Other Professional category is due to limited parallels with priest, minister, rabbi, nun, or monk in Western society. The occupation of holy man may be entered early in life, but more often it is sought late in life, after a Hindu has raised a family and arranged marriages for his children. Because the status of holy man is generally entered late in life, if at all, the relative paucity of children choosing this role (only five) does not necessarily reflect a lack of interest in religious occupations and values. Here are the first few sentences of an essay by a sixth-grade rural girl illustrating this choice:

"Every man has different ideas. Some want to be teachers, some doctors, but I want to be a devotee of God just like Swami Dayananda and Dhruv. Just as Swami Dayananda worshiped God, made *gurukuls*, taught holy men how to worship God, preached for satyagrahas, and delivered lectures before great saints."¹

The Miscellaneous Service category includes three general kinds of essays. All are characterized by the fact that no specific occupation is mentioned. Most prominent in this category are essays in which the occupational choice is simply "service." This type of essay was especially

¹ Swami Dayananda Saraswati is the founder of the Arya Samaj movement, a reform sect of Hinduism. To the many followers of Arya Samaj in the Delhi area, Swami Dayananda was a teacher of progress and reform. The sect has training schools (*gurukuls*) where students are given religious instruction and are sometimes trained as nurses and doctors in Ayurvedic medicine. For further information on Arya Samaj and its role in Delhi villages, see Farquhar (1915), Freed and Freed (1966), and Dayananda Saraswati (1956). The term satyagraha refers to non-violent civil disobedience, a form of political protest, the development of which is attributed to Gandhi. Dhruv is a mythical figure born into the warrior class who later became a holy man and attained the favor of the god Vishnu who elevated him to the heavens where he became the polar star (Dowson, 1950, p. 91).

frequent among rural boys. When rural people refer to service, they mean work outside the village that is paid for in money rather than in kind. Often not much education or special training is involved. The term covers both governmental and private employment (cf. Mukerjee and Gupta, 1959, chap. 11). Urban workers use the term to cover employment in government and public institutions for the most part, but it is also applied to private organizations.

In addition to service, the Miscellaneous Service category contains essays in which a child professes a desire to help India or his village but without the implication of paid employment that is contained in the use of the term "service." The following is an example of such an essay written by a boy of the urban upper class in the sixth grade:

"I will be a helper to the people and country when I grow up. I will help people and will run to help them anywhere I hear them cry. I will help the blind crossing the street. If anyone hurts himself while playing I will take him to the hospital. I will talk with respect to all whether big or small. If I will talk to them politely, they too will talk in the same way to me."

The category Miscellaneous Service also includes some essays that are only lists of moral precepts or actions. No occupation is chosen, not even service, nor is there any mention of helping the country or a village. The above essay without the first sentence would be an example.

REASONS FOR CHOICES

The reasons that children gave for their occupational choices were grouped into eight categories. As the designation for one category, we used the Hindi word *dharma*, which can be translated as ethical, proper, or religious conduct. The eight categories and a fairly exhaustive enumeration of the children's statements that were included in each follow:

DHARMA: I will serve God, build temples, serve saints; I will not (one must not) lie, cheat, steal, be dishonest, be foolish; I will be (one should be) good, wise, just; I will do good deeds, scold evildoers, keep discipline, not care for money, respect elders, respect the sick, love everybody, love all younger than I, work lovingly, cure the sick, teach the illiterate, serve the poor, serve others, make reforms in my chosen field.

FAMILY: Parent has the same occupation; other relative has the same occupation; parents agree with choice; parents insist on choice; I will gain special treatment for my family, serve my family, support my family; my family is poor.

GOD AND FATE: Fate already decided; appeals to God; luck will decide; one should pray to God, worship, emulate religious leaders.

NATIONALISM: I will serve the country, protect the country, make progress in the country, remove defects, win name for the country, make the country first among the nations, sacrifice life for my country, emulate national heroes

(Nehru, Gandhi, S. C. Bose, and others), keep peace, make peace prevail, make rule of God in the country, build schools, roads, hospitals, help the villages, help the farmers, get electricity, water, better fertilizer, clean streets, catch thieves and bandits; India is backward, lagging; education for self and others is necessary for progress of country.

NONE: No reason given.

OWN VILLAGE: I will help my own village, the farmers of my village, clean its streets, pave its streets, get water, electricity, build school in my village, educate villagers, stop the smoking of cigarettes and hukka in village, win name for my village.

PRESTIGE: I will win name for myself, be respected, win name for my family, win name for my school, be boss over others, get the highest degree, be the greatest, be the best.

SELF: I will live comfortably, make money, travel, study abroad; other jobs have disadvantages; against parent's wishes; my childhood desire; I have interest, liking for the field; I have related experience; one does not have to work hard.

We decided upon the above set of categories after reading through the essays and on the basis of our findings during 21 months of field-work. The sets of statements included in categories Dharma, Family, Nationalism, and Self are extremely prominent in the essays, as they were in our interviews and conversations with the villagers of Shanti Nagar. Although the categories Prestige, God and Fate, and Own Village occur relatively infrequently in the essays, they were considerably more prominent in our discussions and interviews with Indians; therefore, we established them as separate categories.

The classification of the essays with regard to reasons was more difficult than the classification of occupational choices because the great majority of children gave a list of reasons involving more than one category. Only one reason (i.e., category) per student could be allowed owing to our use of the chi-square test for analyzing the data. When a child gave reasons of more than one category, we disregarded excess reasons according to three criteria applied successively. If the essay contained a "because" statement, we gave it priority and disregarded other reasons. If there was no "because" statement we tabulated the reasons by category and selected the category most often mentioned, disregarding the others. If two or more categories were mentioned the same number of times, we selected the one mentioned first.

Children in some cases repeated the same idea in two or more sentences. We then counted the reason only once. If two reasons were mentioned in the same sentence (e.g., "I will help the sick and serve my country"), we counted both. If one idea appeared to be subordinated to another in the same sentence, we did not count it. For example, in

the statement "I will aid the sick so that India will make progress," aiding the sick seemed to be subordinate to the idea of helping India make progress and was therefore not counted. In this case, the reason was classified as Nationalism.

With the foregoing guidelines, the classification of most essays was relatively unambiguous, but a small minority of essays seemed to fit almost as well in one category as in another, and judgments as to how to classify them inevitably involved a somewhat subjective element. A feeling for the content of the essays, the difficulties of classification, and the way we applied the above criteria can be gained through the following essays, chosen, in some cases, because they present above-average difficulties in classification.

1. BOY, SIXTH GRADE, RURAL

"I will have my education and be a teacher when I grow up. I will also have a job somewhere else and earn money. I will grow grains by plowing and thus eat what I earn. We must not work foolishly. One can be nothing if he acts foolishly. To deceive and rob others is foolishness. There have been many men in our country who do not know how to earn. Man or boy should be expert in this from the very beginning and should aim to do something for his country. Many people have started speaking lies in our country. They have also taught other people this habit of telling lies. Boys, men, and girls should never tell lies. We should always speak the truth. We should respect our elders. There are many lame and crippled roaming about our country. We should respect them. In this way our country can progress."

The foregoing essay is typical in that the occupational choice is followed by a number of moral exhortations combined with nationalistic sentiments. It presents no classification problems. Occupational choice is classified as Business (farmer and some other occupation). Although someone unfamiliar with the rural areas of Delhi might think that Education would be the best category for this essay, we established the category of farmer and another occupation because many landowners in Delhi villages earn their living in such a fashion: they are farmers and teachers, farmers and policemen, and so on. The reason is Dharma, arrived at by counting statements and taking the category most often mentioned. Disregarding statements that are essentially duplications, we count five Dharma statements (opposing foolishness, denouncing deceit and theft, endorsing truth, supporting respect for elders, and urging respect for crippled people) and two concerned with doing something for one's country that are classified as Nationalism. Moral exhortations of the Dharma type were a feature of many more essays than were classified as Dharma, because they often occur in essays placed in other categories.

This essay is quite typical of children from both Delhi and the rural schools.

2. GIRL, SEVENTH GRADE, URBAN UPPER CLASS

"The work I want to do when I grow up and my desire is to be a doctor and save people from diseases. I want to protect people and be of some use to my family. I may be able to cure a person if he becomes sick. If anything serious happens and it is impossible to get a doctor, then I may be of use to anyone.

"I am building castles in the air from just now to be a doctor. Though I am reading in the seventh class only. My idea is to take science as a subject in the ninth class. This is so that I may join medical later, and then work as a doctor.

"I think I will open a hospital when I grow up. I will help the poor free in the hospital. I feel great pity for the poor who are troubled due to disease but cannot cure themselves due to lack of money and sometimes even die of it. Especially people who do not have anyone whom they can depend upon, they weep for their ill luck. What else can they do? This is why, I think, I must do something for the welfare of the poor. What I have thought is to open a big hospital where the poor can stay when sick. I won't be such a doctor who cares more for those who are rich and clean, and does not care to look at a person who is suffering from leprosy and has come from a distance of seven miles [i.e., a village]. He is unable to walk even and is lying outside begging the doctor to see him first as he is coming from a distance of seven miles. Doctor then replies, 'Get out, I won't see you before ten o'clock.' Poor fellow is convinced and has to sit down. Doctors are always after making money. They do not even think of God, who is pleased by helping the poor and not by making money.

"At length, I would say, I will be a kind and pitying doctor instead of being harsh and cruel. I will work for the protection of the sick people. Side-by-side, I will also serve my country."

Classifying this essay presents no problem. The girl wants to be a doctor for reasons of Dharma. In general, the urban upper-class girls wrote the longest essays. The one quoted is noteworthy because of the imaginative incident about the person suffering from leprosy. Several reasons are given, including statements classifiable as Dharma, Family, Nationalism, and God and Fate. Dharma was selected because it was mentioned more than the others.

3. BOY, FIFTH GRADE, URBAN UPPER CLASS

"I will be a trader when I grow up. I will trade with people at all places. I will sit in my shop and will sell the stuff needed for a house. I will be one of the best traders of Delhi. I will give money to all the poor people. I will make a big temple of the Jains. There will be a big pond. All the money I will earn in this business I will spend on good deeds. Thus my name will live for long in the histories."

This boy will be a businessman for reasons of Dharma. Although there is a strong correlation between occupational choice and reason, it is nonetheless true that any reason can be applied to almost any occupation. Here is a boy who wants to make money to do good deeds.

The following three essays illustrate the reason Nationalism which is associated in these essays with the occupational choices of soldier, scientist, and poetess. The first two essays are rather typical in that Nationalism is often linked with military and scientific careers. The essays were written shortly after the launchings of the first artificial earth satellites, and these events were frequently mentioned by children electing scientific careers. The third essay is unusual in its occupational choice, poetess, and also perhaps in that such an occupation is associated with service to India. It might be added that writing poetry as a service to India may stem from three influences. First, India has had a long tradition of poets who have glorified India, from the unknown compilers of the Vedic hymns and the originally martial hymns of the Ramayana and the Mahabharata (Basham, 1954, pp. 399-401) to Rabindranath Tagore and the poetesses Mira Bai and Sarojini Naidu. This tradition may have been reinforced by a second influence, the British custom of selecting a poet laureate. Third, Prime Minister Nehru established an annual international children's competition for poetry and other writings and artistic expressions in which Indian children actively participated. The prizes were usually awarded in New Delhi (Shankar's Children's Art Number, vol. 15, no date).

4. BOY, SEVENTH GRADE, RURAL

"I will be a soldier and serve my countrymen when I grow up. I won't lag behind if I go in for any war. I will keep my flag raised high. I won't let any enemy attack my country. If the enemy agrees, well and good, but if not, then I will suck the blood of the breast of that criminal. I will give them a hard punishment and I will be the first in my work. I will catch the thieves and dacoits. Whatever money I earn from my job I will spend on the welfare of the village. I will call for the reformers in the village and will try to control the village so that the village may know what discipline is."

5. BOY, SEVENTH GRADE, URBAN UPPER CLASS

"I want to be a scientist when I grow up. Our country is lagging behind in science. I want to raise my country high. Nowadays, Russia and America have sent rockets holding dogs and rabbits to the moon. Some died and others returned alive. India sent a rocket to the moon seven months back which after reaching twenty thousand feet came back. This is why I want to make progress in my country by making improvements in science. Nowadays Russia has sent a rocket which, it is said, has crossed the moon and is going round the sun.

This rocket will be back in the year 2122. On seeing all this my feelings become stronger and stronger. The day will come when I too will send rockets into the sky. It is all these things that attract me to being a scientist."

6. GIRL, SIXTH GRADE, RURAL

"Every man has different ideas. I want to be a poetess when I grow up. Just as Sarojini is called 'the melodious singer,' similarly, I too want to write poems and make progress in my country. I am ready to sacrifice my life for the sake of my country."

The next two essays illustrate the reason Family. The principal statements included in this category are: the desire to aid one's parents, and a parent or other relative is following the child's chosen occupation.

7. BOY, SIXTH GRADE, RURAL

"When I grow up I will do service because my parents are poor. So I want to give them comforts. Our parents have brought us up, educated us, and so we should also serve them. I would like to be a teacher."

8. GIRL, FOURTH GRADE, URBAN UPPER CLASS

"I will be a teacher when I grow up. I will give free education to the poor. I will start a big school. I will teach children with great love. I won't beat little children. I will dismiss the teachers if they beat children. I will name my school 'Blue Bells.' The school will be until the eleventh grade. Reason: My desire to be a teacher becomes stronger and stronger when I see my mother teaching."

The following three essays illustrate the reason Self. An unusual feature is the statement opposing the wishes of a parent in essay 11. Such statements are quite rare.

9. GIRL, SEVENTH GRADE, URBAN UPPER CLASS

"I want to be a teacher when I grow up because I like teaching others. When I was very little I used to teach little children. When I was reading in the first class, the teachers always asked me to take care of the class. I want to be a teacher because when we grow up we will teach very nicely and our country will then make progress. Thus our country will also become like many other countries and will become highly educated. I want to be an English teacher because I have great interest in English and I have been getting the highest marks up to this time in English. I am interested in teaching other subjects also and I can also teach that.

"Nowadays 60 per cent of the people in our country are uneducated and we wish that everybody in our country should be educated.

"There are not as many schools in our country. Many people start teaching a child when he is very little and that's very nice. There are some people who are too poor to pay for the education of their children. This is the reason why 60 per cent of the people remain uneducated. I do not feel as much pleasure

in teaching the children of wealthy families as I feel in teaching the poor children. These poor children should come to me and tell me [if they are unable to pay fees for books and other materials, probably] and then I can teach them as I will be pleased and satisfied in teaching these children, for I will then know that the number of uneducated is decreasing. People who are rich and whose parents are themselves educated can teach their children. But one feels pleasure in teaching those children whose parents as well as they themselves are uneducated."

10. BOY, SIXTH GRADE, RURAL

"I will be a teacher when I grow up, because one is paid monthly either 100 or 150 rupees [in 1959 one rupee equaled 21 cents]. One has simply to sit and wear new clothes. One enjoys holidays. A teacher has to teach in schools. So I will also be a teacher and teach children in school. I will teach students daily and will be saved from doing household work. I will have an education and will enjoy my life. My house expense will run nicely then. Come daily in the train. I will have an education up to the sixteenth grade."

11. BOY, FOURTH GRADE, URBAN UPPER CLASS

"I will be a businessman when I grow up. My father wants me to be a doctor but I do not like being so. Because I want to earn a lot of money. This is why I would like to be a businessman. I will earn money."

Essays 12 and 13 exemplify the relatively rare reason Prestige. The statements classified as Prestige could easily be included in other categories, especially Self, but we wanted to investigate the relation of hierarchy and prestige, so important in many Indian institutions, such as the caste system, to the occupational goals of children. We therefore placed those statements in which children emphasized their own or their families' superior position as regards others in a separate category. Statements relating to the prestige of the country or village were classified under Nationalism or Own Village.

12. BOY, FIFTH GRADE, URBAN MIDDLE CLASS

"I will be a policeman. If there is any bad event of thieves, dacoits, and rogues I will catch them and imprison them. I will stand on the midway and show directions to everyone. There are eight or ten policemen in our police station. I will not be frightened of anyone. I will help everybody. I will bear all the troubles. I will face the enemy. The reason is that I will be respected in my country. I will help everybody and also fine people."

13. BOY, SIXTH GRADE, URBAN UPPER CLASS

"I will be an engineer when I grow up. I will visit the whole world. I will be the greatest engineer in the world. I will make new inventions. I will win name. My name will be written in the newspapers."

God and Fate, a reason rarely given by the children, is illustrated in essays 14 and 15. The first essay involved some delicate judgments as to classification. We classified it in the category God and Fate on the grounds that there was one more God and Fate statement than Dharma statement when duplications of the same idea were disregarded.

14. BOY, SEVENTH GRADE, RURAL

"I want to be a doctor. I am trying to be a doctor from now. If I become a doctor I will protect my country then. If any disease breaks out then I will try to remove it and will do good to everyone. I will give the best medicine I can. Anyone whether he be big or small, fat or thin, rich or poor, I will try to make them healthy. I will remove all sicknesses. If anyone loses his slip I will give him another. [India has a national program of medical care. The slip mentioned is required for one to obtain medical services, including medicine.] I will give medicine to the teachers. When I grow up I will give my children the same medicine I give to other children.

"Oh God! Do make me a doctor. I am your devotee. I will not forget you for my whole life. It was in my luck to be a doctor. If you are kind to me then I can be a doctor. After passing my M.A. I will take my exam in medicine. If I pass I will be very grateful to you."

15. BOY, SEVENTH GRADE, URBAN MIDDLE CLASS

"I will be a doctor when I grow up because my fortune tells me I will. It is very good to be a doctor. Doctors always help others. If there are no doctors in our country then a thousand people will die daily. I will study for 25 years and I will take science as my subject and join the medical line. This is what I desire."

Essay 16 illustrates the relatively rare category Own Village. The decision as to the proper classification was a delicate one. We counted two statements for Own Village, two (disregarding duplications) for Family, and one for Dharma. We therefore classified this essay as Own Village on the grounds that this reason was the first one mentioned.

16. GIRL, SEVENTH GRADE, RURAL

"It is my life's desire to be a doctor. I want to be a doctor and do this profession for the good of the village. If my brothers or sisters are sick I will go and see them and help them. I will examine their pulse and give them medicines. I will also help my family members. My desire is to make my village successful. I must make my whole family successful, my brothers, sisters, mother, and father. We should remove the different kinds of diseases."

The last essay illustrates the infrequent essay that was difficult to classify as to reason. This essay, of which the occupational choice is Miscellaneous Service, could be classified as either Nationalism or

Family, but we classified it as Family on the grounds that family members were being emulated. It could almost as well be classified as Nationalism, because the emulation of older relatives took place in the context of the struggle for Indian independence. Our experience with classifying 1128 essays was that no set of objective criteria can anticipate all the possibilities and solve all the problems. It is probably best to keep the criteria of classification as simple as possible. Evaluations that are largely subjective are inevitable in a minority of cases.

17. BOY, SEVENTH GRADE, URBAN MIDDLE CLASS

"I want to serve my country when I grow up because my grandfather, grandmother, and my father took part in the fight for freedom. They have many times gone to jail. This is why I want to serve my country."

The desire to emulate mythical and historical personages is a noteworthy feature of many essays. The children mentioned a total of 27 different personages. Five were women. Only two, possibly three, were non-Indians: Florence Nightingale, a nurse; Trueman, an English cricketer; and Bushman, a scientist, whom we have been unable to identify but who may be non-Indian. Political and military leaders predominate, a fact that accords with the considerable emphasis on Nationalism that we find in the essays. Fourteen of the personages can be classified as having primarily political or military roles: Abhimanyu, a warrior from India's great epic, the Mahabharata; Arjuna, a warrior deity from the Mahabharata; Asoka, perhaps India's greatest emperor, 269-232 B.C.; S. C. Bose, who fought the British during World War II; Bhim, another of the warriors from the Mahabharata; Mahatma Gandhi, the major leader in India's fight for independence; Rani Lakshmibai of Jhansi, a famous queen of India who led her soldiers against the British in the nineteenth century; Kautilya, the minister of Chandragupta, king of northern India about 300 B.C.; Shrimati Vijay Lakshmi Pandit, Pandit Nehru's sister, who is one of the outstanding women in India's modern history; Pandit Jawaharlal Nehru, the first Prime Minister of India; Rajendra Prasad, first President of India; Maharana Pratap, a Rajput leader who fought the Moghuls; Sardar Vallabhbhai Patel, a leader in the independence struggle; Shivaji, a Maratha leader who fought the Moghuls.

The five religious figures mentioned in the essays were: Dhruv (see p. 8, footnote); Durgawati, one of the great goddesses of Hinduism; Raja Ram Mohun Roy, who founded the Brahmo Samaj, a reform sect of Hinduism; Swami Dayananda Saraswati (see p. 8, footnote); Guru Gobind Singh, the tenth guru in the founding of the Sikh religion.

The businessmen mentioned in the essays were: Birla and Damlia, two of the leading industrial families of India.

The athletes mentioned in the essays were: Lala Amar Nath, an Indian cricketer; and Trueman, an English cricketer.

One nurse, Florence Nightingale; one educator, Dr. Tara Chand, who is active in the Delhi region; one unidentified scientist named Bushman; and one poetess, Sarojini Naidu, associated with Gandhi in the independence movement in India, were mentioned in the essays.

Most of the historic personages mentioned in the essays were also described in the "Children's history of India" (Government of India, 1964). That they were mentioned is a rough index of the effectiveness of teaching the history of India in the Delhi area and, indirectly, of its effectiveness in creating nationalism among school children.

COMPARATIVE ANALYSIS OF THE ESSAYS

For purposes of comparison, we used the chi-square test which tests the null hypothesis that a set of observed frequencies differs no more from a set of expected frequencies than would be expected by chance. The expected frequencies are those calculated on the hypothesis that occupational choice and reason are independent of a child's family background. Thus the calculations given in the tables test the null hypothesis of independence, i.e., whether or not the choices of children are independent of their family backgrounds.

The chi-square test does not yield exact probabilities when expected frequencies fall below five in 20 per cent of the cells of a table or when an expected frequency is less than one. Such is the case in tables 6 to 16 inclusive. For these tables, we recalculated chi-square, combining categories so as to bring the expected frequencies within these guidelines. Most of these recalculated probabilities do not vary appreciably from those for the original categories. None of the recalculated probabilities varies enough to affect the acceptance or rejection of the null hypothesis at any of the usual significance levels (.05, .01, or .001). The details of which categories were combined for recalculating the chi-squares and the resultant probabilities are given at the bottom of each table.¹

Tables 2-5 give a comparison of the occupational choices of groups

¹ Most of the calculations were made on the computer (a CDC-6600) of the Courant Institute of Mathematical Sciences. The program used was BMD-02S, Contingency Table Analysis, version of June 9, 1964, developed by the Health Sciences Computing Facility, University of California at Los Angeles, and adapted for the CDC-6600 by Dr. Than Porter of the Courant Institute of Mathematical Sciences.

TABLE 2
OCCUPATIONAL CHOICES: URBAN AND RURAL BOYS

Occupational Choice	Urban		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Arts	15	4.5	1	.3	16	2.3
Miscellaneous						
Service	17	5.1	123	34.1	140	20.2
Medicine	73	21.9	63	17.5	136	19.6
Science	91	27.3	2	.6	93	13.4
Education	6	1.8	72	19.9	78	11.2
Other Professional	19	5.7	5	1.4	24	3.5
Government	21	6.3	11	3.0	32	4.6
Military	55	16.5	32	8.9	87	12.5
Worker and						
Artisan	9	2.7	8	2.2	17	2.4
Business	27	8.1	44	12.2	71	10.2
Total	333	100.0	361	100.0	694	100.0

Chi-square, 255.05

Degrees of freedom, 9

Probability, < .001

TABLE 3
OCCUPATIONAL CHOICES: URBAN UPPER-CLASS AND RURAL BOYS

Occupational Choice	Urban Upper Class		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Arts	10	4.2	1	.3	11	1.8
Miscellaneous						
Service	5	2.1	123	34.1	128	21.4
Medicine	51	21.5	63	17.5	114	19.1
Science	75	31.6	2	.6	77	12.9
Education	4	1.7	72	19.9	76	12.7
Other Professional	17	7.2	5	1.4	22	3.7
Government	14	5.9	11	3.0	25	4.2
Military	37	15.6	32	8.9	69	11.5
Worker and						
Artisan	8	3.4	8	2.2	16	2.7
Business	16	6.8	44	12.2	60	10.0
	237	100.0	361	100.0	598	100.0

Chi-square, 253.96

Degrees of freedom, 9

Probability, < .001

TABLE 4
OCCUPATIONAL CHOICES: URBAN MIDDLE-CLASS AND RURAL BOYS

Occupational Choice	Urban Middle Class		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Arts	5	5.2	1	.3	6	1.3
Miscellaneous						
Service	12	12.5	123	34.1	135	29.5
Medicine	22	22.9	63	17.5	85	18.6
Science	16	16.7	2	.6	18	3.9
Education	2	2.1	72	19.9	74	16.2
Other Professional	2	2.1	5	1.4	7	1.5
Government	7	7.3	11	3.0	18	3.9
Military	18	18.8	32	8.9	50	10.9
Worker and						
Artisan	1	1.0	8	2.2	9	2.0
Business	<u>11</u>	<u>11.5</u>	<u>44</u>	<u>12.2</u>	<u>55</u>	<u>12.0</u>
Total	96	100.0	361	100.0	457	100.0

Chi-square, 103.18

Degrees of freedom, 9

Probability, $< .001$

TABLE 5
OCCUPATIONAL CHOICES: URBAN UPPER-CLASS AND URBAN MIDDLE-CLASS BOYS

Occupational Choice	Urban Upper Class		Urban Middle Class		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Arts	10	4.2	5	5.2	15	4.5
Miscellaneous						
Service	5	2.1	12	12.5	17	5.1
Medicine	51	21.5	22	22.9	73	21.9
Science	75	31.6	16	16.7	91	27.3
Education	4	1.7	2	2.1	6	1.8
Other Professional	17	7.2	2	2.1	19	5.7
Government	14	5.9	7	7.3	21	6.3
Military	37	15.6	18	18.8	55	16.5
Worker and						
Artisan	8	3.4	1	1.0	9	2.7
Business	<u>16</u>	<u>6.8</u>	<u>11</u>	<u>11.5</u>	<u>27</u>	<u>8.1</u>
Total	237	100.0	96	100.0	333	100.0

Chi-square, 27.29

Degrees of freedom, 9

Probability, $.001 < p < .005$

of boys: urban and rural, urban upper class and rural, urban middle class and rural, and urban upper class and urban middle class. There are great differences between urban and rural, urban upper class and rural, and urban middle class and rural. The difference between urban upper class and urban middle class, although statistically significant at a high level, is much less than between the other groups. These results generally remain the same when the children are divided into two groups based on grade in school, the fourth and fifth graders and the sixth through eighth graders, and the comparisons made within these groups. (In other words, rural fourth- and fifth-grade boys are compared with urban fourth- and fifth-grade boys, rural sixth- through eighth-grade boys with urban sixth- through eighth-grade boys, and so on.) Thus the differences demonstrated in tables 2-5 are not to any significant extent the result of different distributions of ages among the groups of boys. The only comparison yielding somewhat different results is that between the upper- and middle-class boys who appear closer together when the older and younger boys are compared separately. Comparison of all the upper- and middle-class boys gives a probability of $.001 < p < .005$ (table 5); the same comparison for fourth- and fifth-grade boys gives a probability of $.05 < p < .10$; for sixth- through eighth-grade boys, the probability is $.02 < p < .05$.

The principal differences between urban and rural and urban upper-class and rural boys are in the categories Arts, Miscellaneous Service, Science, and Education. The urban boys emphasize Arts and Science much more than do the rural boys, the latter favoring careers in Education and Miscellaneous Service. The greater orientation among the urban boys toward technologically sophisticated occupations is revealed especially by the higher percentage electing careers in Science; 27 per cent of the urban boys, 32 per cent of the urban upper-class boys, but only .6 per cent of the rural boys. When rural boys elect a profession, they generally choose among those with which they are familiar, i.e., Education, Military, and Medicine, the last two being quite popular among the urban boys as well. That urban boys express a much more precise picture of the occupational world is indicated by the substantially fewer essays classified as Miscellaneous Service. However, the high proportion of responses in the Miscellaneous Service category among the rural boys (34%) is due to the fact that most of the boys are sons of farmers. These boys plan to live in their villages and work on the land. At the same time they hope to find some type of subsidiary urban employment.

If occupational choices are arranged in rank order according to popularity, we again find that the urban upper-class and urban middle-class

TABLE 6
REASONS: URBAN AND RURAL BOYS

Reason	Urban		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Dharma	63	20.2	53	15.3	116	17.6
Prestige	15	4.8	6	1.7	21	3.2
Family	36	11.5	99	28.6	135	20.5
Nationalism	100	32.1	121	35.0	221	33.6
Self	80	25.6	39	11.3	119	18.1
God and Fate	2	.6	1	.3	3	.5
None	16	5.1	19	5.5	35	5.3
Own Village	<u>0</u>	<u>.0</u>	<u>8</u>	<u>2.3</u>	<u>8</u>	<u>1.2</u>
Total	312	100.0	346	100.0	658	100.0

Chi-square, 57.23

Degrees of freedom, 7

Probability, $< .001$; when the category God and Fate is combined with Dharma, $p < .001$.

boys are more similar to one another than those in either group are to rural boys. The three most popular occupations of the urban upper-class boys are, in descending order, Science, Medicine, and Military, accounting for 69 per cent of all choices. The same three occupational choices, although in a different order (Medicine, Military, and Science), are the most popular among the urban middle-class boys, accounting for 58

TABLE 7
REASONS: URBAN UPPER-CLASS AND RURAL BOYS

Reason	Urban Upper Class		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Dharma	54	22.8	53	15.3	107	18.4
Prestige	13	5.5	6	1.7	19	3.3
Family	22	9.3	99	28.6	121	20.8
Nationalism	69	29.1	121	35.0	190	32.6
Self	68	28.7	39	11.3	107	18.4
God and Fate	1	.4	1	.3	2	.3
None	10	4.2	19	5.5	29	5.0
Own Village	<u>0</u>	<u>.0</u>	<u>8</u>	<u>2.3</u>	<u>8</u>	<u>1.4</u>
Total	237	100.0	346	100.0	583	100.0

Chi-square, 66.42

Degrees of freedom, 7

Probability, $< .001$; when the category God and Fate is combined with Dharma, $p < .001$

TABLE 8
REASONS: URBAN MIDDLE-CLASS AND RURAL BOYS

Reason	Urban Middle Class		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Dharma	9	12.0	53	15.3	62	14.7
Prestige	2	2.7	6	1.7	8	1.9
Family	14	18.7	99	28.6	113	26.8
Nationalism	31	41.3	121	35.0	152	36.1
Self	12	16.0	39	11.3	51	12.1
God and Fate	1	1.3	1	.3	2	.5
None	6	8.0	19	5.5	25	5.9
Own Village	0	.0	8	2.3	8	1.9
Total	75	100.0	346	100.0	421	100.0

Chi-square, 8.65

Degrees of freedom, 7

Probability, $.20 < p < .30$; when the category God and Fate is combined with Dharma, and Prestige is combined with Self, $.20 < p < .30$

per cent of all choices. But the three most popular choices among the rural boys are Miscellaneous Service, Education, and Medicine, accounting for 72 per cent of all choices.

Tables 6-9 present comparisons among urban, urban upper-class, urban middle-class, and rural boys with regard to reasons. Note that the total

TABLE 9
REASONS: URBAN UPPER-CLASS AND URBAN MIDDLE-CLASS BOYS

Reason	Urban Upper Class		Urban Middle Class		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Dharma	54	22.8	9	12.0	63	20.2
Prestige	13	5.5	2	2.7	15	4.8
Family	22	9.3	14	18.7	36	11.5
Nationalism	69	29.1	31	41.3	100	32.1
Self	68	28.7	12	16.0	80	25.6
God and Fate	1	.4	1	1.3	2	.6
None	10	4.2	6	8.0	16	5.1
Total	237	100.0	75	100.0	312	100.0

Chi-square, 17.13

Degrees of freedom, 6

Probability, $.005 < p < .01$; when the category God and Fate is combined with Dharma, $.005 < p < .01$

number of students in each of these four tables is less than the total number in the corresponding tables dealing with occupational choices. For example, the total in table 2 is 694; that of table 6, 658. The difference in totals is because the teachers in two classes of boys (and one of girls) failed to ask for reasons, and therefore most of these children gave none. We know that they were not asked to give reasons because children generally copied the topic sentence, "What kind of work I want to do when I grow up, and why," as a heading for their essays; but in three classes the children headed their essays, "What kind of work I want to do when I grow up," omitting the "why." We did not classify these children in the category None, reserving that for children who were asked for reasons but gave none. Children who were not asked for reasons and therefore gave none were not included in the analysis of reasons.

There are highly significant differences between urban and rural boys (table 6) and between urban upper-class and rural boys (table 7). The differences between urban upper-class and urban middle-class boys (table 9) are much less, although still significant at the .01 level. There is no significant difference between urban middle-class and rural boys (table 8). These results are not particularly affected by a division of the children by grade, grades 4 and 5 in one group and 6 through 8 in the other, and making comparisons within these groups. Between urban and rural boys, the chi-square values are reduced by more than half, yet the probabilities remain highly significant ($p < .001$ for the fourth- and fifth-grade boys; $.001 < p < .005$ for the sixth- through eighth-grade boys). A comparison of the upper-class and rural boys for both grades 4 and 5 and grades 6 through 8 yields probabilities of less than .001, although, again, the chi-square values are reduced by more than half. The probabilities with regard to upper- and middle-class boys hover in the vicinity of .01 ($.01 < p < .02$ for grades 4 and 5; and $.001 < p < .005$ for grades 6 through 8). There is no significant difference between sixth- through eighth-grade, middle-class and rural boys ($.05 < p < .10$), but there is a difference at the .05 level of significance when only the fourth- and fifth-grade boys are considered ($.02 < p < .05$).

The principal differences between urban and rural boys and urban upper-class and rural boys are in the categories Prestige, Family, Self, and Own Village (or city). Family and Self are particularly revealing. Twenty-nine per cent of the rural boys against only 12 per cent of the urban boys gave the reason Family. The situation is the reverse with regard to Self: 26 per cent of the urban boys and only 11 per cent of the rural boys select this reason. This variation is in accord with the belief held by many anthropologists and sociologists that considerations

TABLE 10
OCCUPATIONAL CHOICES: URBAN AND RURAL GIRLS

Occupational Choice	Urban		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Arts	5	1.5	1	1.0	6	1.4
Miscellaneous						
Service	18	5.5	10	9.5	28	6.5
Medicine	194	59.0	14	13.3	208	47.9
Science	3	.9	0	.0	3	.7
Education	85	25.8	78	74.3	163	37.6
Other Professional	10	3.0	1	1.0	11	2.5
Government	7	2.1	1	1.0	8	1.8
Military	1	.3	0	.0	1	.2
Worker and						
Artisan	1	.3	0	.0	1	.2
Business	2	.6	0	.0	2	.5
Housewife	3	.9	0	.0	3	.7
Total	329	100.0	105	100.0	434	100.0

Chi-square, 91.70

Degrees of freedom, 10

Probability, $< .001$; when Other Professional, Arts, and Science are combined in one category and Government, Military, Worker and Artisan, Business, and Housewife in another, $p < .001$

of family are weaker in the city than in the countryside. It is noteworthy that there is less difference among the groups of boys regarding reasons than regarding the occupational choices (note the smaller values of chi-square in corresponding tables), and that the urban middle-class boys again seem to occupy a position between the urban upper-class and rural boys, although in the case of reasons they appear to resemble more closely the rural rather than the urban upper-class boys, as was the case with regard to occupational choices.

If we rank the reasons according to their popularity, we find that Nationalism is first for all groups. The first three choices of urban upper-class boys are, in descending order: Nationalism, Self, and Dharma, accounting for 81 per cent of their choices. Urban middle-class boys chose Nationalism, Family, and Self, accounting for 76 per cent of their choices. Rural boys selected Nationalism, Family, and Dharma, accounting for 79 per cent of their choices. These results are almost identical with those obtained when only the sixth- through eighth-grade boys are considered. The younger boys, grades 4 and 5, however, give

TABLE 11
OCCUPATIONAL CHOICES: URBAN UPPER-CLASS AND RURAL GIRLS

Occupational Choice	Urban Upper Class		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Arts	5	2.0	1	1.0	6	1.7
Miscellaneous						
Service	10	4.0	10	9.5	20	5.7
Medicine	151	60.9	14	13.3	165	46.7
Science	1	.4	0	.0	1	.3
Education	60	24.2	78	74.3	138	39.1
Other Professional	10	4.0	1	1.0	11	3.1
Government	5	2.0	1	1.0	6	1.7
Military	1	.4	0	.0	1	.3
Worker and						
Artisan	1	.4	0	.0	1	.3
Business	1	.4	0	.0	1	.3
Housewife	3	1.2	0	.0	3	.8
Total	248	100.0	105	100.0	353	100.0

Chi-square, 93.15

Degrees of freedom, 10

Probability, $< .001$; when Other Professional, Arts, and Science are combined in one category, and Government, Military, Worker and Artisan, Business, and Housewife in another, $p < .001$

a different picture. Their first three choices, in rank order, are: Self, Nationalism, and Dharma for the urban upper class; Nationalism, Dharma, and None for the urban middle class; and None, Dharma, and, in a three-way tie, Prestige, Family, and Nationalism for the rural boys. Thus Nationalism is generally less prominent among the younger boys. The attitudes of the sixth through eighth graders probably do not represent a terminal situation; it seems more likely that shifts in an individual's attitudes would take place several times as his circumstances change during his lifetime.

Tables 10-13 present comparisons among urban, urban upper-class, urban middle-class, and rural girls with regard to occupational choices. A noteworthy feature of these data is that girls chose medical work (170 doctors and 35 nurses out of 208 choosing medical careers) and teaching to an overwhelming degree. These two categories account for 86 per cent of the occupational choices. For boys also, medical careers are popular (130 chose doctor), but medicine and education do not dominate the choices of boys as they do those of girls. Only 31 per cent of the boys

TABLE 12
OCCUPATIONAL CHOICES: URBAN MIDDLE-CLASS AND RURAL GIRLS

Occupational Choice	Urban Middle Class		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Arts	0	.0	1	1.0	1	.5
Miscellaneous						
Service	8	9.9	10	9.5	18	9.7
Medicine	43	53.1	14	13.3	57	30.6
Science	2	2.5	0	.0	2	1.1
Education	25	30.9	78	74.3	103	55.4
Other Professional	0	.0	1	1.0	1	.5
Government	2	2.5	1	1.0	3	1.6
Business	<u>1</u>	<u>1.2</u>	<u>0</u>	<u>.0</u>	<u>1</u>	<u>.5</u>
Total	81	100.0	105	100.0	186	100.0

Chi-square, 45.24

Degrees of freedom, 7

Probability, $< .001$; when all categories except Medicine and Education are combined, $p < .001$

chose Medical and Educational careers. Girls apparently see little open to them in the way of careers except for Education and Medicine; excluding the Miscellaneous Service responses, we find that only 35 girls (8%) chose other occupations. The girls did not choose careers as housewives, simply because they take being housewives for granted, and they understood that they were to write about their future job interests. The Japanese and American girls studied by Goodman (1957, p. 984) also ignored housewife as an occupational choice.

There are statistically highly significant differences ($p < .001$) between urban and rural girls, between urban upper-class and rural girls, and between urban middle-class and rural girls. The principal differences are in the medical and educational categories: 59 per cent of the urban girls but only 13 per cent of the rural girls chose medical careers; 74 per cent of the rural girls but only 26 per cent of the urban girls chose careers in education. Just as for boys, the urban middle-class girls seem to occupy a position between the urban upper-class and rural girls; in the case of the girls, however, the difference between upper and middle class is not statistically significant.

When the girls are divided into two groups (grades 4 and 5 and grades 6 through 8), and comparisons are made within these groups, the differences between urban and rural and urban upper-class and rural girls

TABLE 13
OCCUPATIONAL CHOICES: URBAN UPPER-CLASS AND URBAN MIDDLE-CLASS GIRLS

Occupational Choice	Urban Upper Class		Urban Middle Class		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Arts	5	2.0	0	.0	5	1.5
Miscellaneous						
Service	10	4.0	8	9.9	18	5.5
Medicine	151	60.9	43	53.1	194	59.0
Science	1	.4	2	2.5	3	.9
Education	60	24.2	25	30.9	85	25.8
Other Professional	10	4.0	0	.0	10	3.0
Government	5	2.0	2	2.5	7	2.1
Military	1	.4	0	.0	1	.3
Worker and						
Artisan	1	.4	0	.0	1	.3
Business	1	.4	1	1.2	2	.6
Housewife	3	1.2	0	.0	3	.9
Total	248	100.0	81	100.0	329	100.0

Chi-square, 15.64

Degrees of freedom, 10

Probability, $.10 < p < .20$; when all categories except Medicine, Education, and Miscellaneous Service are combined, $.05 < p < .10$

remain significant at the .001 level, although the chi-square values are reduced by about one-half. The differences between urban middle-class and rural girls are maintained at the .001 level for grades 4 and 5; for grades 6 through 8, the probability is $.02 < p < .05$. There is no significant difference between upper- and middle-class girls in grades 4 and 5 ($.30 < p < .50$), but the difference for those in grades 6 through 8 is significant at the .001 level. This situation is primarily the result of a difference in the occupational goals of older and younger girls of the middle class: 84 per cent of the younger girls chose Medicine and 14 per cent chose Education, but only 27 per cent of the older girls chose Medicine and 46 per cent chose Education. The upper-class girls opt for Medicine no matter what their grade: 64 per cent of the younger girls and 59 per cent of the older.

The apparent shift in occupational choices among the middle-class girls as they become older may be due to an increasingly realistic appraisal of their prospects. On the average, middle-class girls may not have the financial resources to go as far in school as the upper-class girls. As they become aware of such a possibility, they shift their occu-

TABLE 14
REASONS: URBAN AND RURAL GIRLS

Reason	Urban		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Dharma	122	39.0	18	17.1	140	33.5
Prestige	9	2.9	0	.0	9	2.2
Family	34	10.9	11	10.5	45	10.8
Nationalism	78	24.9	59	56.2	137	32.8
Self	58	18.5	4	3.8	62	14.8
God and Fate	0	.0	1	1.0	1	.2
None	12	3.8	10	9.5	22	5.3
Own Village	<u>0</u>	<u>.0</u>	<u>2</u>	<u>1.9</u>	<u>2</u>	<u>.5</u>
Total	313	100.0	105	100.0	418	100.0

Chi-square, 62.95

Degrees of freedom, 7

Probability, $< .001$; when the category God and Fate is combined with Dharma, and Own Village is combined with Nationalism, $p < .001$

pational choice from Medicine to teaching. Until relatively recently, most girls were not encouraged to go to school, much less to work outside the home. Their major occupational choices reflect reasonably well the occupational possibilities for women. India needs a great many nurses and female physicians because, when Indian women use the services of physicians or nurses, they generally prefer to be examined and treated by women.

Tables 14-17 present comparisons among urban, urban upper-class, urban middle-class, and rural girls with respect to reasons. In three of these tables, the total number of girls is less than the total in the corresponding table giving the occupational choices. For example, the total in table 10 is 434 but that in table 14 is only 418. The reason is explained above (p. 24).

There are statistically significant differences ($p < .001$) between urban and rural girls, between urban upper-class and rural girls, and between urban upper-class and urban middle-class girls. The differences between urban middle-class and rural girls are not statistically significant. When the girls are divided into two groups (grades 4 and 5 and grades 6 through 8), and comparisons are made within these groups, the results are the same.

The principal differences between urban and rural girls are in the categories Self, Dharma, and Nationalism, with the first two more fre-

TABLE 15
REASONS: URBAN UPPER-CLASS AND RURAL GIRLS

Reason	Urban Upper Class		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Dharma	106	42.7	18	17.1	124	35.1
Prestige	8	3.2	0	.0	8	2.3
Family	25	10.1	11	10.5	36	10.2
Nationalism	53	21.4	59	56.2	112	31.7
Self	53	21.4	4	3.8	57	16.1
God and Fate	0	.0	1	1.0	1	.3
None	3	1.2	10	9.5	13	3.7
Own Village	0	.0	2	1.9	2	.6
Total	248	100.0	105	100.0	353	100.0

Chi-square, 80.37

Degrees of freedom, 7

Probability, $< .001$; when the category God and Fate is combined with Dharma, and Own Village is combined with Nationalism, $p < .001$

quent among the urban girls and the third more common among the rural girls. It is noteworthy that the reason Family is equally important to rural and urban girls. Thus, the idea that considerations of family are less important in the city than in the countryside seems, as far as these data go, to be valid only for boys.

If we rank the reasons given by girls as to their popularity, we find that Nationalism ranks first for urban middle-class and rural girls, but that Dharma ranks first for the girls of the urban upper class. The situation is somewhat different from that among the boys among whom Nationalism ranks first for all groups. As with the boys, nationalistic sentiments grow stronger as the girls grow older. The first four choices of the urban upper-class girls are Dharma, Nationalism and Self (tie), and Family; when the fourth and fifth graders are compared with the sixth through eighth graders, the most noteworthy difference is a considerable increase in Nationalism (see table 19). The first four choices of the urban middle-class girls are Nationalism, Dharma, and Family and None (tie); for this group, the older and younger girls are quite different, but again there is an increase in Nationalism as well as in Family. The first four choices of the rural girls are Nationalism, Dharma, Family, and None; the most noteworthy shift between the younger and older girls in this group is the substantial reduction in None responses and a considerable gain in Nationalism among the older girls.

TABLE 16
REASONS: URBAN MIDDLE-CLASS AND RURAL GIRLS

Reason	Urban Middle Class		Rural		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Dharma	16	24.6	18	17.1	34	20.0
Prestige	1	1.5	0	.0	1	.6
Family	9	13.8	11	10.5	20	11.8
Nationalism	25	38.5	59	56.2	84	49.4
Self	5	7.7	4	3.8	9	5.3
God and Fate	0	.0	1	1.0	1	.6
None	9	13.8	10	9.5	19	11.2
Own Village	0	.0	2	1.9	2	1.2
Total	65	100.0	105	100.0	170	100.0

Chi-square, 9.35

Degrees of freedom, 7

Probability, $.20 < p < .30$; when the category Prestige is combined with Self, God and Fate with Dharma, and Own Village with Nationalism, $.10 < p < .20$

Although our principal interest was to investigate the differences in the choices of children as affected by their family backgrounds, the speed and versatility of the computer made possible the testing of the effects of other variables with little cost or extra effort. These results are not of sufficient interest to present in detail but can be briefly summarized. When the essays are grouped by family background (rural, urban, and so on), when each group is dichotomized into children of

TABLE 17
REASONS: URBAN UPPER-CLASS AND URBAN MIDDLE-CLASS GIRLS

Reason	Urban Upper Class		Urban Middle Class		Total	
	Number	Column Per Cent	Number	Column Per Cent	Number	Column Per Cent
Dharma	106	42.7	16	24.6	122	39.0
Prestige	8	3.2	1	1.5	9	2.9
Family	25	10.1	9	13.8	34	10.9
Nationalism	53	21.4	25	38.5	78	24.9
Self	53	21.4	5	7.7	58	18.5
None	3	1.2	9	13.8	12	3.8
Total	248	100.0	65	100.0	313	100.0

Chi-square, 38.21

Degrees of freedom, 5

Probability, $< .001$

TABLE 18
CHOICE OF REASON BY BOYS CLASSIFIED BY FAMILY BACKGROUND AND GRADE IN SCHOOL^a

Reason	Urban Upper Class		Urban Middle Class		All Urban		Rural	
	Grades 4, 5	Grades 6-8	Grades 4, 5	Grades 6-8	Grades 4, 5	Grades 6-8	Grades 4, 5	Grades 6-8
Dharma	20.9	25.8	20.5	2.8	20.9	19.2	27.6	14.2
Prestige	6.1	4.5	5.1	.0	5.9	3.2	10.3	.9
Family	7.4	12.4	5.1	33.3	7.0	18.4	10.3	30.3
Nationalism	23.6	38.2	46.2	36.1	28.3	37.6	10.3	37.2
Self	34.5	19.1	7.7	25.0	28.9	20.8	6.9	11.7
God and Fate	.7	.0	.0	2.8	.5	.8	.0	.3
None	6.8	.0	15.4	.0	8.6	.0	34.5	2.8
Own Village	.0	.0	.0	.0	.0	.0	.0	2.5
Number of essays	148	89	39	36	187	125	29	317

^a The figures in cells are column percentages.

TABLE 19
CHOICE OF REASON BY GIRLS CLASSIFIED BY FAMILY BACKGROUND AND GRADE IN SCHOOL^a

Reason	Urban Upper Class		Urban Middle Class		All Urban		Rural	
	Grades 4, 5	Grades 6-8	Grades 4, 5	Grades 6-8	Grades 4, 5	Grades 6-8	Grades 4, 5	Grades 6-8
Dharma	52.2	34.6	37.8	7.1	48.7	29.8	23.1	15.2
Prestige	.9	5.3	2.7	.0	1.3	4.3	.0	.0
Family	13.0	7.5	.0	32.1	9.9	11.8	7.7	11.4
Nationalism	7.8	33.1	29.7	50.0	13.2	36.0	38.5	62.0
Self	23.5	19.5	5.4	10.7	19.1	18.0	.0	5.1
God and Fate	.0	.0	.0	.0	.0	.0	.0	1.3
None	2.6	.0	24.3	.0	7.9	.0	30.8	2.5
Own Village	.0	.0	.0	.0	.0	.0	.0	2.5
Number of essays	115	133	37	28	152	161	26	79

^aThe figures in cells are column percentages.

the fourth and fifth grades and those of the sixth through eighth grades, and when the two grade groups are compared within each of the family-background categories, we can explore the effect of age on the choices of occupation and reason, with family background held constant.

Of eight possible comparisons (four for boys and four for girls) regarding occupational choice, only two show significant differences ($p < .001$). Therefore, we may reasonably conclude that an effect of age on occupational choice has not been clearly established, at least in regard to differences between children of the fourth and fifth grades and those of the sixth through eighth grades. Similarly eight comparisons can be made with regard to reasons, and in these we find an age effect. Six of these comparisons are significant with a probability $< .001$; one is significant with a probability $< .005$; and one is significant with a probability $< .01$. The data regarding reasons for boys are given in table 18; those for girls, in table 19. In general, the older children chose Family and, as noted above, Nationalism more than did the younger. The latter chose Dharma, None, and Prestige more than did the former.

Another variable, the effects of which can be investigated, is fathers' education. Again, we grouped the essays by family background, then classified those within each group as to whether the child's father was illiterate, literate up to a higher secondary education, or had studied at the college level. For most groups containing enough essays to make a meaningful test of the effect of fathers' education, it could not be shown that fathers' education had any effect on occupational choice or reason apart from that already accounted for by the variable family background. The only exception was the occupational choices of middle-class boys where there were differences between boys whose fathers had studied at the college level and the rest of the boys ($p < .05$).

It is interesting to note that in rural areas the better-educated fathers are generally more likely to send daughters to school than the less-educated fathers. The difference is reflected in the fact that the fathers of girl students are generally better educated than the fathers of boy students. Of the fathers of girls, 24 per cent were illiterate, 66 per cent were literate up to a higher secondary education, and 11 per cent had studied at the college level. The corresponding figures for fathers of boys were 58 per cent illiterate; 40 per cent literate to a higher secondary school level; and 2 per cent had attended college.

The effects of fathers' occupation could not be adequately investigated, for the few essays that appear in the various cells of the tables make the results relatively meaningless. The data on mothers' education and occupation were not suitable for comparative analysis.

COMPARISON OF INDIAN, JAPANESE, AND AMERICAN RESULTS

Only the roughest comparisons can be made among the Japanese and American school children that were studied by Goodman and the Indian school children. In order that relatively reliable conclusions be reached two conditions, which have not been met, are necessary. First, the essays for all countries should be classified according to the same categories. Goodman's occupational categories and ours are not entirely the same; for example, our military category contains police and hers does not. Second, the characteristics of the school children with regard to occupation, education, and income of parents (that is, family background) must be clearly defined before any comparison between countries can be valid. Our research shows that occupational choices and reasons differ in relative frequency between urban upper-class, urban middle-class, and rural children. Variation within a country may exceed variation between countries, as some of the data in table 20 seem to indicate. Note, for example, that, in regard to professions, urban Indian boys and urban American boys are similar, but rural Indian boys are considerably different from either. An interesting possibility is suggested, namely, that, as India, Japan, and the United States approach one another closely in terms of modern industrialization, the occupational goals of children may show greater similarity between those of the different countries who have similar family backgrounds than between children within a single country who have different family backgrounds.

Although any conclusions are highly tentative because of these circumstances, we nonetheless present two comparative tables (tables 20 and 21). Note the following: We compared our Indian results of grades 4 through 8 with Goodman's results of grades 5 through 8; therefore the grades do not entirely correspond. The urban Indian children are most comparable to the Japanese and American children, for Goodman (1957, p. 980) characterized her children as living in urban or suburban areas and as being of middle-class background. Percentages do not add to 100, because certain categories are not common among the groups and therefore have been omitted.

For table 21, we added together Prestige¹ and Self to match Goodman's "self-orientations" category, and Dharma, Family, Nationalism,

¹ Our Prestige category includes prestige for one's family as well as for one's self. Thus, if we were to reclassify all of our essays to correspond to Goodman's categories, the percentage of Indian children in the self-orientation category would be less than the figure given in table 21.

TABLE 20
COMPARISON OF OCCUPATIONAL CHOICES: INDIA, JAPAN, AND THE UNITED STATES^a

Occupational Choices ^b								
Boys			Girls					
India	Japan ^c	United States ^c	Urban India ^d	Rural India ^d	Japan ^c	United States ^c	Urban India ^d	Rural India ^d
Arts	16.9	14.5	4.5	.3	20.3	14.2	1.5	1.0
Medicine, Science, Other	25.5	50.4	54.9	19.5	4.9	8.3	62.9	14.3
Professional Education	3.0	.9	1.8	19.9	31.5	17.3	25.8	74.3
Military	.0	6.7	16.5	8.9	.0	1.1	.3	.0
Business	21.8	7.3	8.1	12.2	9.4	11.4	.6	.0
Worker and Artisan	14.5	8.2	2.7	2.2	9.1	2.0	.3	.0
Government								
	3.7	.3	6.3	3.0	1.7	.1	2.1	1.0
Number of essays	427	899	333	361	406	967	329	105

^a The figures in the cells are column percentages.

^b The categories are as designated in this paper for India, and in Goodman (1957, pp. 979-999) for Japan and America.

^c Goodman (*loc. cit.*). The figures do not add to 100; the balance is accounted for by "miscellaneous," "specialties," and "religious roles."

^d The figures do not add to 100; the balance is accounted for by the "Miscellaneous Service" responses.

TABLE 21
COMPARISONS OF REASONS: INDIA, JAPAN, AND THE UNITED STATES^a

Reason	Boys			Girls				
	Japan ^b	United States ^b	Urban India	Rural India	Japan ^b	United States ^b	Urban India	Rural India
Self-orientations	39.7	71.1	30.4	13.0	50.0	69.2	21.4	3.8
Other-orientations	49.4	24.0	63.8	81.2	39.6	27.2	74.8	85.7
Number of essays	423	909	312	346	409	951	313	105

^a The figures in the cells are column percentages. They do not add to 100 because reasons that could not be classified as either self- or other-orientations were omitted.

^b Goodman (1957, pp. 979-999).

and Own Village to match her "other-orientations" category. The most striking feature of the comparison of reasons, we think, is the much stronger other-orientation among the Indian children. It is also noteworthy that the Indian children, like the Japanese and in contrast to the American, conceive of the national interest as being served in many ways other than simply through military activities and defense (Goodman, 1957, p. 990).

SUMMARY AND DISCUSSION

Rural and city children generally differ in their occupational choices and their reasons for the choices. Urban children lean more toward occupations involving modern science and technology and are more inclined to explain their choice on grounds related to self. These patterns will probably become more prominent in India, not only because urbanization and industrialization are advancing and hence the number of urban school children is increasing, but also because greater literacy and improved communications in the form of radio, television, newspapers, and magazines will increasingly bring urban influences into the rural areas. These influences not only may lead rural children to seek urban employment in scientific and technical fields, but they may serve to modernize traditional rural occupations, such as farming. The result would be to lessen the differences between rural and urban children that are currently substantial, especially those between urban upper-class and rural children.

The great emphasis that Indian children place on Dharma and Nationalism is noteworthy. The constellation of values here classified as Dharma is especially Indian and, when essays have been collected from the children of a number of countries, may serve to characterize Indian essays more than any other reason. Nationalism, the most commonly expressed reason, is associated with many occupations. Thus, the fervent nationalism of Indian children can find productive outlets in medicine, teaching, and the like. Its expression is clearly not confined to military roles, although these are popular. Furthermore, in the essays of children who are preoccupied with national service in military terms, we find almost no mention of specific enemies either by country or by political or religious ideology. In the 1128 essays, only three children mentioned specific enemies. Since the early months of 1959, however, when these essays were written, India has been involved in serious fighting along its borders with both China and Pakistan. We would expect these two countries to be more frequently mentioned as enemies by school children today than in 1959.

Although the Indian school children often discussed some of India's problems, such as illiteracy and disease, it is interesting to note that two of India's problems that so preoccupy the Western world (population growth and the inability to grow enough food) received little attention in the essays. The need to grow more food was mentioned only a few times; India's population growth was not mentioned at all. But the food and population problems may be of more interest in India today than they were in 1959. Dr. Saberwal informed us (personal communication) that, in December, 1967, both food and family planning were topics of ubiquitous interest in the state of Madhya Pradesh. One would therefore expect to find a somewhat greater interest in at least the food problem reflected in school childrens' essays written today.

REFERENCES CITED

- BASHAM, A. L.
1954. *The wonder that was India*. New York.
- DAYANANDA SARASWATI, SWAMI
1956. *The light of truth*. Translated by Ganga Prasad Upadhyaya. Allahabad.
- DOWSON, JOHN
1950. *A classical dictionary of Hindu mythology and religion, geography, history, and literature*. Seventh edition. London.
- FARQUHAR, J. N.
1915. *Modern religious movements in India*. New York, (etc.).
- FREED, RUTH S., AND STANLEY A. FREED
1966. Unity in diversity in the celebration of cattle-curing rites in a north Indian village: a study in the resolution of conflict. *Amer. Anthropol.*, vol. 68, no. 3, pp. 673-692.
- GOODMAN, MARY ELLEN
1957. Values, attitudes, and social concepts of Japanese and American children. *Amer. Anthropol.*, vol. 59, no. 6, pp. 979-999.
- GOVERNMENT OF INDIA
1964. *Children's history of India*. Third impression. Faridabad, Publications Division, Ministry of Information and Broadcasting.
- MUKERJEE, P. K., AND S. C. GUPTA
1959. *A pilot survey of fourteen villages in U.P. and Punjab*. Bombay, (etc.).

